

## SIGNATURE PAGE

**Title:** SITE REASSESSMENT for SIX OAKS MOBILE HOME PARK

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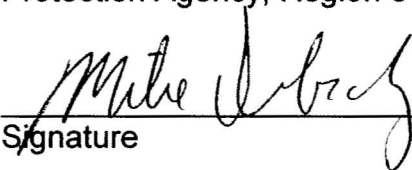
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CERCLA  
SITE REASSESSMENT  
Other Clean-up Activity

for:

SIX OAKS MOBILE HOME PARK  
PECATONICA, ILLINOIS  
ILD981095268

PREPARED BY:  
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
BUREAU OF LAND  
OFFICE OF SITE EVALUATION

January 5, 2010

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**Approval:** David Brauner, Site Assessment Manager, United States  
Environmental Protection Agency, Region 5

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## TABLE OF CONTENTS

<b>1.0 INTRODUCTION.....</b>	<b>1</b>
<b>2.0 SITE DESCRIPTION AND HISTORY .....</b>	<b>2</b>
2.1 SITE DESCRIPTION.....	2
2.2 SITE HISTORY .....	3
2.3 CERCLA INVESTIGATIVE HISTORY.....	7
<b>3.0 OTHER REGULATORY &amp; CLEAN-UP AUTHORITY ACTIVITIES .....</b>	<b>8</b>
<b>4.0 SUMMARY AND CONCLUSIONS .....</b>	<b>9</b>
<b>5.0 REFERENCES.....</b>	<b>11</b>

### FIGURES

Figure 1.....	Site Location Map
Figure 2.....	Site Map
Figure 3.....	4-Mile Distance Map

### APPENDICES

Appendix A.....	Superfund Memorandum of Agreement
Appendix B.....	1999 Consent Decree

### ATTACHMENTS

Attachment 1 (under separate cover).....	Site Recommendation/QuickScore
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## **1.0 INTRODUCTION**

On May 8, 2009, the Illinois Environmental Protection Agency's (Illinois EPA) Office of Site Evaluation was tasked by the United States Environmental Protection Agency (U.S. EPA) Region V to conduct a Site Reassessment at the Six Oaks Mobile Home Park site located in Pecatonica, Illinois. The site address is 16260 West State Road, Pecatonica, Illinois, 61063. The site is located in Section 4, Township 26 North, Range 10 East of the Third Principal Meridian, Winnebago County, Illinois. The coordinates for the site are 42.286564 degrees latitude, and -89.3544281 degrees longitude. Figure 1 of this report shows the site location.

Current U.S. EPA policy stipulates that a Site Reassessment be conducted to determine the current status of the Six Oaks Mobile Home Park site. This Site Reassessment will consist of an evaluation of recent information to determine if further investigation is warranted under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The Site Reassessment will supplement previous work and is not intended to replace previous CERCLA assessments.

The Site Reassessment is designed to evaluate information that will help determine if the site qualifies for possible inclusion on the National Priorities List, or should receive a No Further Remedial Action Planned (NFRAP) designation. At the conclusion of the reassessment process, Illinois EPA will recommend that the site be given a NFRAP designation, receive further Superfund investigation, or be referred to another state or federal cleanup program. The Site Reassessment is performed under the authority of CERCLA, commonly known as Superfund.

The Six Oaks Mobile Home Park site was placed on the Comprehensive Environmental Response, Compensation, and Liability Information System (CERLCIS) in January of 1986. The most recent CERCLA work conducted on the site was in 1989 when U.S. EPA's Field Investigation Team (FIT) contractor completed a Screening Site Inspection (SSI) on the facility. The Site Reassessment Report will describe current site conditions and illustrate how the site has changed since the Screening Site Inspection. The Site Reassessment will also support emergency response or time-critical removal activities if it is determined that they are warranted.

## **2.0 SITE DESCRIPTION AND HISTORY**

### **2.1 Site Description**

The Six Oaks Mobile Home Park site is the location is an approximately 4-acre parcel of land which contains approximately 27 mobile homes (USGS, 2005). Richard McQuality Jr. of Stillman Valley is the current owner of the mobile home park (Kershaw, 2009).

The site is located approximately one and one-half miles south of the town of Pecatonica on Jackson Road. The site is located in Section 4, Township 26 North, Range 10 East of the Third Principal Meridian, Winnebago County, Illinois. The site is in the 16<sup>th</sup> congressional district. The coordinates for the site are 42.286564 degrees latitude, and -89.354281 degrees longitude. The site address is 16260 West State Road, Pecatonica, Illinois, 61063. State Route 20 borders the site to the north along with residential properties. A wooded residential lot borders the site to the south. The property is bordered by farmland to the east and grassland followed by Illinois State Police headquarters to the west. The site and surrounding area is relatively flat and rural in nature. The nearest surface water body is Grove Creek, located one-half mile southeast

of the site (Ecology and Environment, 1989). Figure 1 shows the site location and surrounding area. Figure 2 provides an aerial photo of the site.

According to a water well database maintained by the Illinois State Water Survey, 50 private wells are located within a one-mile radius of the site (ISGS, 2009). (It should be noted that the database depends on largely unregulated self-reporting and in most cases, data are not field-verified). Figure 3 of this report shows the location of private drinking water wells and community water supply wells in relation to the site.

## 2.2 Site History

The mobile home park has been in operation since about 1950. Around 1969 a water supply well was constructed for the mobile home park in conjunction with the owner's new residence. The owner's residence and the water supply well were both located on the north end of the park. In approximately 1970, six underground storage tanks (USTs) were placed on the northern end of the park and used to hold waste oil products as well as gasoline. The water supply well was located approximately 200 feet north of the USTs. (Illinois EPA, 1986)

In 1985 Illinois EPA sampled the Six Oaks community water supply well (Illinois EPA # 11151) in response to an anonymous complaint about the USTs (Illinois EPA, Preliminary, 1986). Laboratory results for the water sample identified the presence of several volatile organic compounds (VOCs) at concentrations above drinking water standards (Maximum Contaminant Levels [MCLs]) (Illinois EPA, Preliminary, 1986). Compounds detected included trans-1,2-dichloroethylene (trans-1,2-DCE) at 56 parts per billion (ppb), trichloroethylene (TCE) at 64 ppb, 1,1,1-trichloroethane (1,1,1-TCA) at

30 ppb, tetrachloroethylene (PCE) at 8 ppb, and 1,1-dichloroethane (1,1-DCA) at 3 ppb (Illinois EPA, Preliminary, 1986). Illinois EPA mobilized to the site in November of 1986 in order to install on-site monitoring wells and investigate the underground storage tanks present on-site (Illinois EPA, News Release, 1986). Groundwater samples collected from three on-site monitoring wells and 12 off-site private wells identified a plume of groundwater contamination originating from the USTs flowing generally northward, in the direction of groundwater flow (Illinois EPA, 1988). At that time, three private wells located to the northwest of the site had TCE concentrations in excess of drinking water standards (Illinois EPA, 1996). In the succeeding months, two of the three homes with private wells containing the highest levels VOC levels installed commercially available whole-house filters (Illinois EPA, 1996). Many of the same VOCs were identified in samples collected from the USTs nearby (Illinois EPA, Preliminary, 1986). In response, the owner of the park and USTs began to empty and steam clean the USTs. (Illinois EPA, Preliminary, 1986)

In February of 1987 Illinois EPA installed a water treatment system comprised of carbon filtration and chlorination that would provide safe drinking water for residents of the mobile home park (Illinois EPA, 1988). Ten (10) additional private well samples were collected in 1987 (Bynam, 1997). Laboratory analysis results from the ten private well samples identified four wells with VOC concentrations in excess of drinking water standards (Bynam, 1997). However, three of the four had been previously identified during the 1986 sampling (Bynam, 1997).

In April of 1988 Illinois EPA completed the removal of all the remaining USTs, tank waste, and associated contaminated soil at the mobile home park (Keller, 1988). Illinois EPA collected soil samples beneath all six USTs in order to confirm that all of the



impacted soil was removed (Keller, 1988). The excavated area was replaced with clean fill material (Illinois EPA, 1996). VOC levels in raw water from the Six Oaks community water supply well decreased after the source material was removed (Illinois EPA, SWAP, 2009).

In 1993, Illinois EPA collected untreated (raw) water well samples from 27 homes in the area surrounding the mobile home park (Bynam, 1997). A total of six wells were identified that had VOC concentrations in excess of drinking water standards (Bynam, 1997). (Two of the six wells had been identified during previous sampling events.) Illinois EPA's Groundwater Section sampling of the Six Oaks community water supply well in September of 1997 detected total VOC at a level of 18.5 ppb, consisting of trichloroethylene (8.5 ppb), cis-1,2 -dichloroethylene (4.1 ppb), 1,1,1-trichloroethane (2.6 ppb) and tetrachloroethylene (3.3 ppb). The MCLs are 5.0 ppb for trichloroethylene, 70.0 ppb for cis-1,2-dichloroethylene, 200 ppb for 1,1,1-trichloroethane, and 5.0 ppb for tetrachloroethylene.

In 1996, on behalf of Illinois EPA, the Illinois Attorney General's Office filed a complaint against several potential responsible parties in relation to wastes that were hauled to the USTs located on the mobile home park (People vs. Melvin, 1999). The 1996 complaint sought to recoup past costs and establish future responsibility for remediation and operation and maintenance of water treatment system at the mobile home park (People vs. Melvin, 1999). In February of 1999, the final Consent Order was filed in Winnebago County Circuit Court and addressed issues identified in the 1996 complaint (People vs. Melvin, 1999).

In 1998, in conjunction with the finalization of legal issues at the site, Illinois EPA conducted additional monitoring of private drinking water wells in the region surrounding the site. Illinois EPA collected raw water samples from 20 residential wells north of the mobile home park. Sixteen out of twenty of the private wells had been previously tested and only one had concentrations of TCE at levels greater than drinking water standards. (Bynam, 1998)

In 2007, the group of responsible parties operating the water treatment system at the mobile home park petitioned to discontinue treatment because untreated water entering the system had dropped below MCLs. Illinois EPA approved the request to discontinue treatment with the stipulation that the filters remain serviceable and treatment would begin again based on quarterly raw water sampling results. (Kershaw, 2009).

Water samples from two drinking water wells at the site are collected by a Certified Operator and are submitted to either Illinois EPA's laboratory or a certified private lab (Hanson). Water sample results are submitted electronically to Illinois EPA's Public Water Supply Compliance Assurance Section (Hanson). Laboratory results that are in violation of MCLs are electronically flagged so that they may be address by Illinois EPA Compliance Assurance personnel (Hanson). Additionally, Illinois EPA's Public Water Supply Field Operations Section conducts a manual review of data and conducts site visits at Illinois' drinking water facilities every three years (Hanson). Since 2007, there have been no contaminants detected at concentrations greater than MCLs. TCE was the compound detected at the highest concentration of 4.4 ppb, but the result was typically less than 3 ppb.

### 2.3 CERCLA Investigative History

The Six Oaks Mobile Home Park Site was entered on CERCLIS in January of 1986. Illinois EPA conducted a Preliminary Assessment (PA) on October of 1986. The PA consisted of interviews with knowledgeable personnel and reviews of various historical information sources included Illinois EPA files. Based on the presence of USTs and liquid waste along with the contamination of a nearby community drinking water well, the site was given a high priority and an additional CERCLA investigation was recommended for the facility (Illinois EPA, 1986).

On behalf of U.S. EPA, Ecology & Environment, Inc. conducted a Screening Site Inspection (SSI) of the site in April of 1988. The SSI included an “interview with a site representative, a reconnaissance inspection of the site, soil gas sampling, and the collection of six soil samples”. With the exception of background locations, Ecology and Environment collected 16 soil gas samples and 6 soil samples in the northern portion of the site. Soil gas samples identified the presence of toluene, m-xylene and tetrachloroethene exceeding 1 part per million. Soil samples were collected in areas where elevated soil gas readings were obtained however no VOCs were identified (with the exception of methylene chloroide which is a common laboratory contaminant). Nevertheless, in consideration of the groundwater contamination and presence of underground storage tanks, the result of the SSI was the recommendation for further analysis under the CERCLA process. (Ecology and Environment, 1989)

The site remained on CERCLIS but was never investigated further under the program.

### **3.0 OTHER REGULATORY & CLEAN-UP AUTHORITY ACTIVITIES**

In 1986, Illinois EPA responded to the discovery of contaminated drinking water at Six Oaks Mobile Home Park under State authority using funds from its Clean Illinois Program which were designated for responding to sites contaminated with hazardous wastes. As described in Section 2.2, *Site History* of this document, Illinois EPA coordinated the following activities at the site:

- Placement of an activated carbon and chlorination treatment system for the community drinking water well at Six Oak Mobile Home Park;
- Removal of USTs and associated soil contamination from the northern portion of the mobile home park;
- Installation of on-site monitoring wells
- Collection and analysis of over 69 ground water samples obtained from 34 private drinking water wells in the region surrounding the site;
- Provision for long-term sampling, operation, and maintenance of the community water supply well and associated treatment equipment at the mobile home park.

Illinois EPA's State Site Unit currently has notification procedures in-place and enforceable by the 1999 Consent Order should periodic monitoring indicate that VOC concentrations in the untreated water from the park's community water supply well exceed MCLs. In addition, the Consent Order required that Melvin, the site owner, place a deed restriction of the property title so that any current or future owner would be legally required to continue the treatment/monitoring program in place as of this writing.

#### **4.0 SUMMARY AND CONCLUSIONS**

On December 18, 1991 (amended April 6, 1995), a Superfund Memorandum of Agreement (SMOA) was signed between Illinois EPA and U.S.EPA Region 5. The SMOA states that if a site has been remediated or made a no action determination under a state cleanup program, the site will not be expected to require further response actions. U.S. EPA Region 5 will not plan or anticipate any federal response actions under CERCLA unless the site poses an imminent threat or emergency situation. A copy of the SMOA can be found in Appendix A.

Illinois EPA is party to a Consent Order mandating continued monitoring and treatment (if necessary) of all current and future owners of the Six Oak Mobile Home Park and associated drinking water wells. The groundwater contamination associated with the Mobile Home Park has reduced steadily following waste removal and as of 1998, only one off-site private well was known to have had concentrations of VOCs present at levels greater than MCLs. As such, Six Oaks Mobile Home Park Site does not present significant threats to human health and the environment for the specified recognized environmental conditions so long as the property is utilized in accordance with the Consent Order. The Six Oaks Mobile Home Park Site is subject to provisions of the federal/state agreement set forth in the addendum to the SMOA.

In consideration of previous private well sample results from 1986, 1987, 1993, the most recent results indicate that VOC levels in wells north of the facility have reduced since 1988 when the source material was removed. In 1998 only one well, located downgradient and nearest the site still had concentrations of TCE at levels greater than drinking water standards. Laboratory results from quarterly monitoring of the two drinking

water wells in the mobile home park have shown VOC concentrations that were regularly less than MCLs.

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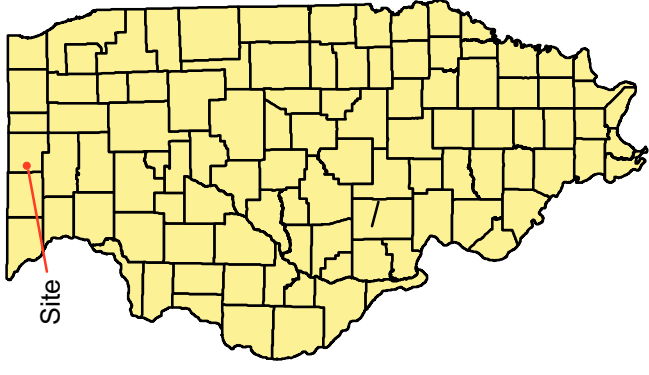
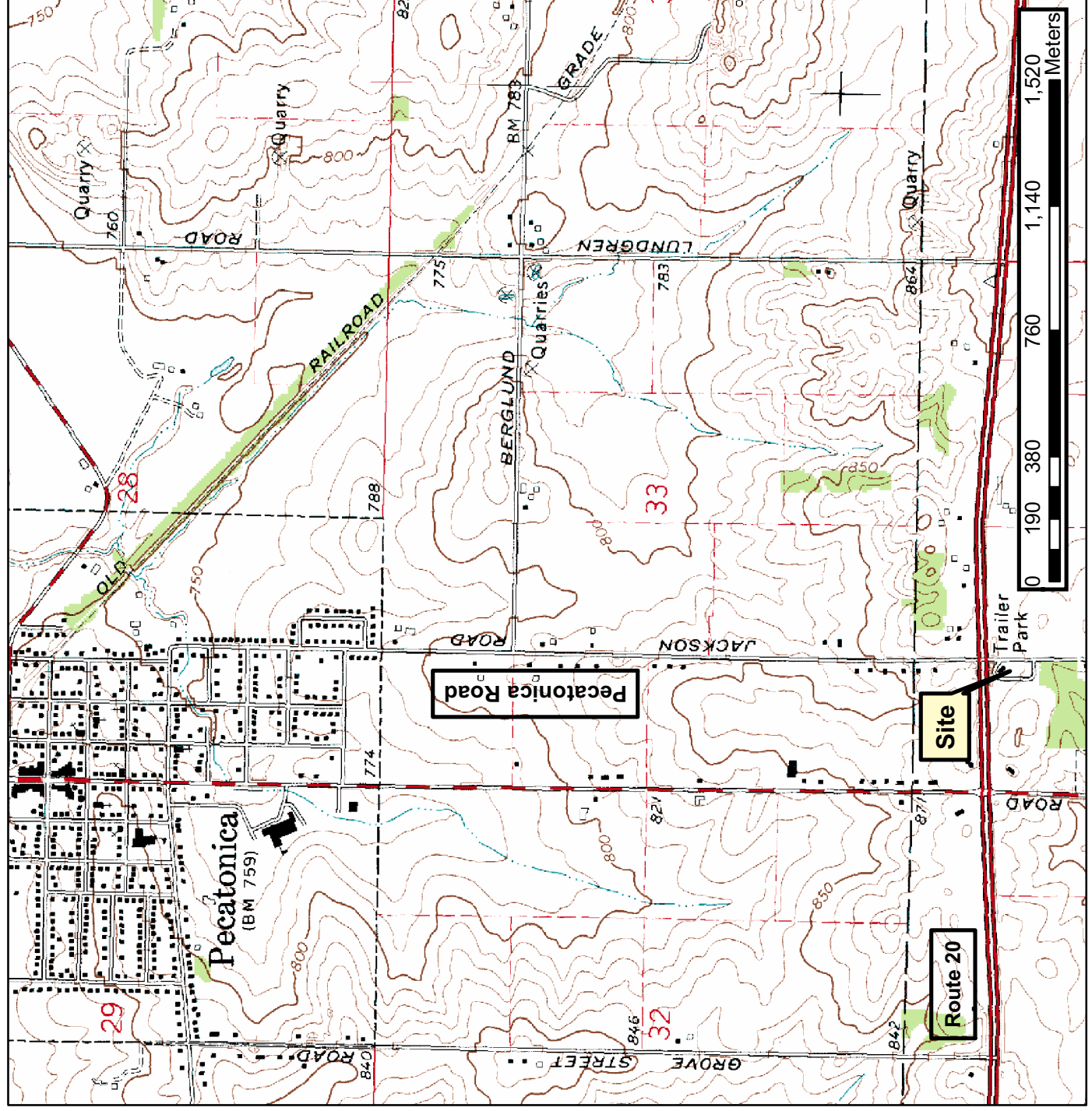
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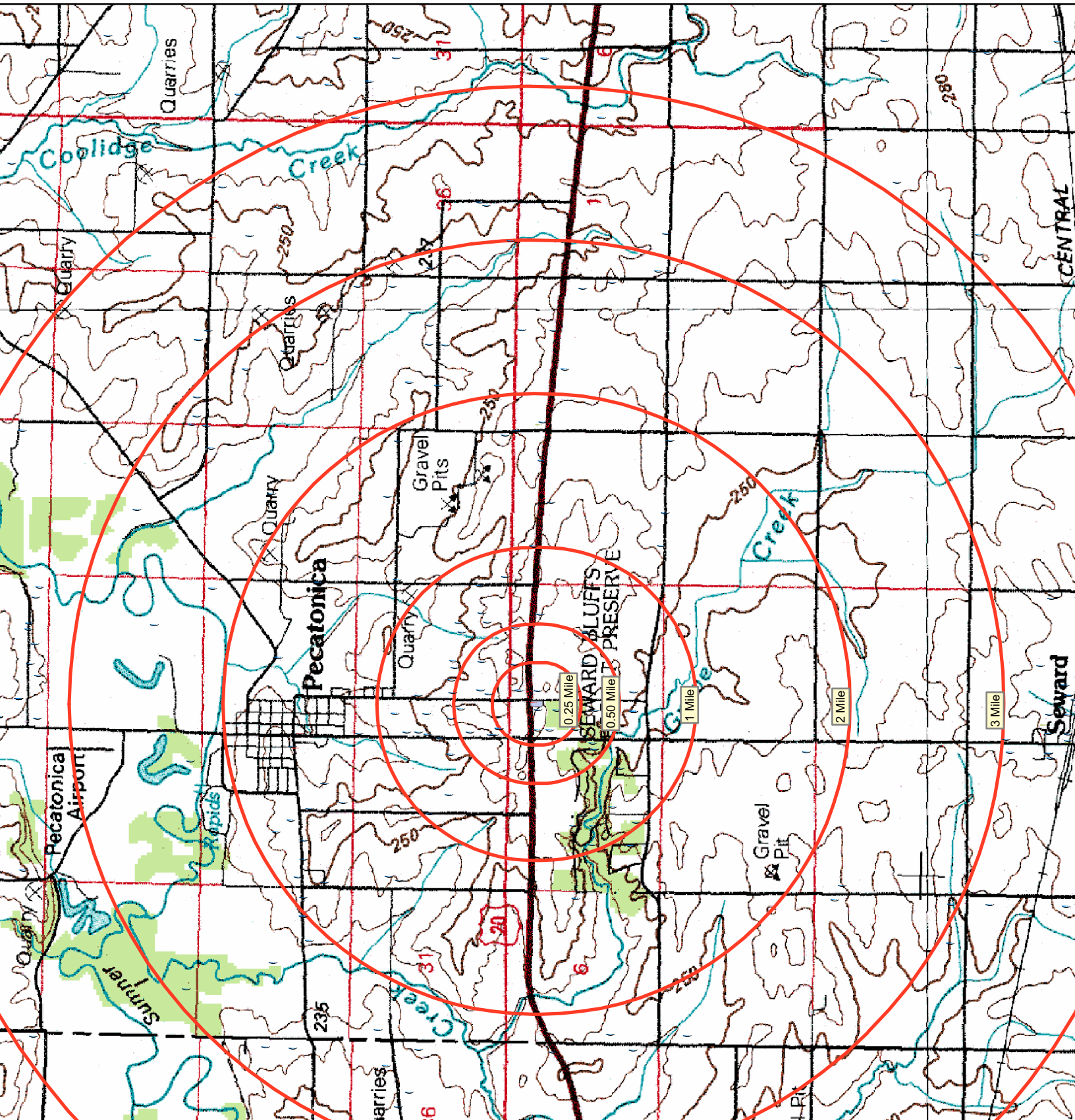




**Figure 1**  
**Six Oaks**  
**Mobile Home Park**  
**Site Location Map**

**Figure 2**  
Six Oaks Mobile Home Park  
Aerial Photograph



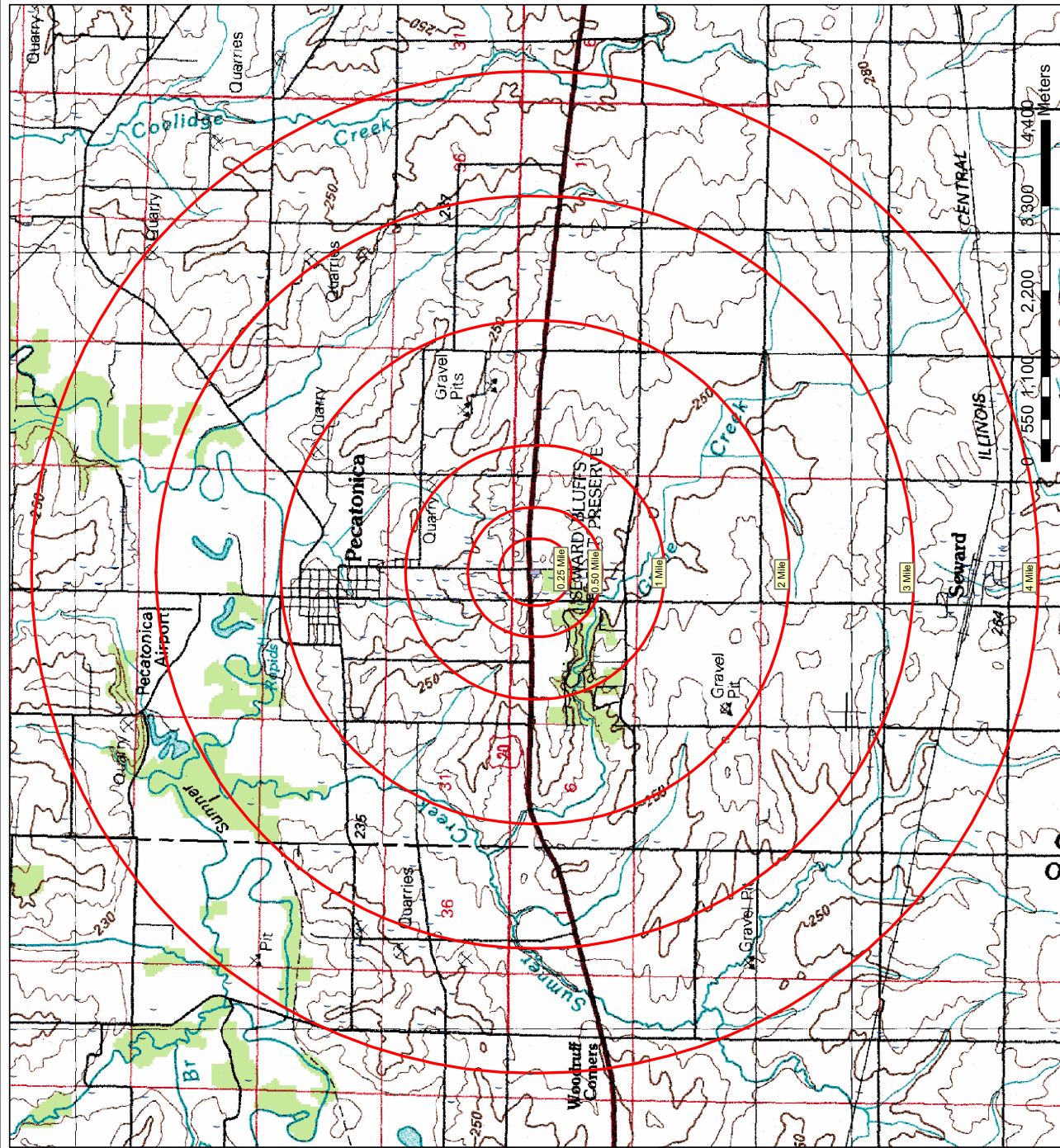


**Legend**

- Comm
- Supply
- Non-C
- Water
- ISGS D

F  
S  
Mobil  
Four-N





**Figure 3**  
 Six Oaks  
 Mobile Home Park  
 Four-Mile Radius Map

